DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection Bay Area Branch

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-018311 Address: 333 Burma Road **Date Inspected:** 24-Nov-2010

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: Xu tao **CWI Present:** Yes No Yes **Inspected CWI report:** N/A **Rod Oven in Use:** Yes No No N/A Yes N/A **Weld Procedures Followed:** N/A **Electrode to specification:** No Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component: OBG** Components

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector, S.Chandrakumar was present during the times noted above for observations relative to the work being performed.

BAY#19

FCAW welding of weld is identified as 2G-006 of BK4BSD1-001 for BK004B-001. The welder is identified as 062808. ZPMC QC is identified as Mr. Guo xing hui. The welding variables recorded by QC are appeared to comply with the WPS-B-T-2332-Tc-U4b-F.

FCAW welding of weld is identified as 1G-010 of BK004B3-001 for BK004B-001. The welder is identified as 062732. ZPMC QC is identified as Mr. Guo xing hui. The welding variables recorded by QC are appeared to comply with the WPS-B-T-2331-Tc-P4-F.

FCAW welding of weld is identified as 3G-009 of BK004B3-001 for BK004B-001. The welder is identified as 062761. ZPMC QC is identified as Mr. Guo xing hui. The welding variables recorded by QC are appeared to comply with the WPS-B-T-2233-Tc-U4c-F.

This QA inspector performed VT of BK004A -006 internal weld areas and internal cleaning previously tested and accepted by ZPMC Quality Control personnel. Areas requiring additional grinding and cleaning were marked by QA. But ZPMC not yet done the repair work, QC Mr.Xu tao cancelled the notification.

This QA inspector performed MT 15% of weld areas previously tested and accepted by ZPMC Quality Control

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personnel. This QA inspector generated an MT report for this date. The members are identified as OBG Bike path. The weld designations reviewed as follows.

BK004A2-006-016,018.

This QA inspector performed UT 10% of weld areas previously tested and accepted by ZPMC Quality Control personnel. This QA inspector generated an UT report for this date. The members are identified as OBG Suspender bracket. The weld designations reviewed as follows.

SB98E

SB021-098-004,007,028,037,049,020,005,008,019,011,001.

SB100E

SB021-100-018,019,004,005,007,008,031,043,055,015,037,020,011,001.

BAY#8

During the Quality Assurance (QA) random visual inspection of the Bike paths, this Quality Assurance Inspector (QA) discovered the following issues:

-ZPMC has temporarily tack welded steel plates on top of the Bike path. The Bike path is identified as;

BK004A-056, BK004A-061, BK004A-058, BK004A-064, BK004A-057 .Total of two (w) steel plates was welded as temporary attachments with the both end of top plate of Bike Path. The approved shop drawings do not specify any welds in these locations. The length of the temporary steel attachment appr.5500mm in length. The additional material and welding was not approved by the engineer.

For more information please see the attached Incident report

04-0120F4_TL-15_B247_11-24-10_BK004A-056,061,058,064,057_Temporary_welds_added_without_approval

BAY#19

During Caltrans QA in process observations of the fabrication of Bike path BK004B-001 this QA discovered the following issue(s):

ZPMC welding personnel did not appear to be following the NEW WELD PROCEDURE (Rager / McQuaid)

The following requirements were not followed:

BK004B2-001-001,007. Assembly not as per procedure.

BK004B5-001-004 & BK4BSD1-001-007. Post weld heat treatment not followed.

For more information please see the attached Incident report

04-0120F4_TL-15_B247_11-24-10_BK004B-001_Post_heat & Assembly.

During Caltrans QA in process observations of the fabrication of Bike path BK004B-001 this QA discovered the following issue(s):

ZPMC welding personnel did not appear to be following the NEW WELD PROCEDURE (Rager / McQuaid)

The following requirements were not followed:

The weld is identified as BK005A2-002-003.

The welding process used was Shielded metal arc welding (SMAW).

The area was not being preheated.

For more information please see the attached Incident report

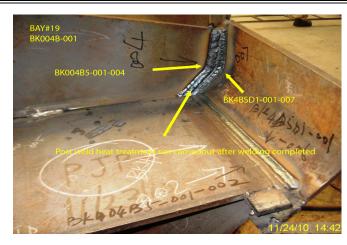
04-0120F4_TL-15_B247_11-24-10_BK005A-002_Pre_heat_(1)

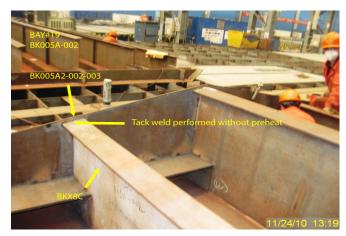
Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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Summary of Conversations:

No relevant Conversation.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang-15--0042-2372, who represents the Office of Structural Materials for your project.

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Inspected By: Kumar, Chadra Quality Assurance Inspector **Reviewed By:** Patel, Hiranch QA Reviewer